

## **Tell Me About The AF Refractive Surgery Program**

Corneal Refractive Surgery (CRS) is an elective surgical procedure designed to reduce your dependence on spectacles and/or contact lenses. There are many FDA-approved procedures and techniques available. In this rapidly developing field, there are also procedures and techniques under development and investigation. Most have had excellent results in reducing dependence on standard vision corrective devices for thousands of patients. The AF Refractive Surgery program is designed to provide state-of-the-art treatments while assuring the best possible outcome for AF members.

However, there is no guarantee you will have "perfect" sight after undergoing any of these procedures. While the principle goal of all CRS procedures is to optimally correct your distance vision, achieving so-called "perfect" distance vision is not always achieved. Some of those treated will still require corrective lenses to meet required military or civilian vision standards or to obtain the best possible distance vision under all lighting conditions.

Further, these procedures do not alter the focusing ability of your eye's crystalline lens. This ocular lens inside your eye is responsible for adjusting your vision for near tasks. Muscles controlling the crystalline lens' shape are at rest when you have sharp vision for distant objects (with spectacles/contact lenses if necessary). When the muscles contract, the crystalline lens changes the focus of sharp vision to near tasks, like reading. The change in the crystalline lens power is so automatic that the majority of people aren't aware of the refocusing until they get older and start losing this capability. All of us, whether undergoing refractive surgery or not, gradually lose the ability of the crystalline lens to refocus our vision. The result of this loss of ability is near focus (reading) becomes difficult or impossible. Most people first experience this phenomenon called "presbyopia" around the age of 40. As described, current CRS technology does not alter the function or capability of the crystalline lens. Consequently, virtually everyone will need reading glasses or a different prescription for near vision tasks whether CRS is undertaken or not at some point in their career. Nearsighted people have an advantage in that their eyes are naturally focused at near. They must wear vision correction to see clearly at distance. But when they become presbyopic, they can simply remove their vision correction for near vision.

If you are currently nearsighted and often remove your glasses to read, it is important to consider the impact of CRS may have on your lifestyle. Corneal refractive surgery's goal is to make your eyes see distant objects with the same (or better) clarity than with your glasses. If you have a typical CRS outcome, you will be seeing at distance much better without glasses than you do now. If you now remove your glasses to read, you won't be able to "remove" the CRS correction. Instead you may have to put glasses on to read. The decision to trade distance vision correction for near vision correction is just one of the factors you need to consider before undergoing CRS.

Corneal Refractive Surgery is a procedure using a laser to remove (ablate) a thin layer of the clear tissue from the front surface of your eye, the cornea. The location and amount of tissue ablated is precisely controlled. The result is a reshaping of the cornea and thereby a change in your refractive correction.

Approved AF corneal refractive surgery procedures fall under two basic areas; anterior surface ablation (ASA), and intra-stromal ablation (ISA). Anterior surface ablation uses an Excimer laser to ablate or remove corneal tissue just under the epithelium. Photorefractive Keratectomy (PRK) and Laser Epithelial Keratomileusis (LASEK) are examples of anterior surface ablation. Intra-stromal ablation uses the same laser as the anterior surface ablation technique, but a thin "flap" of corneal tissue is created and moved out of the path of the laser. The tissue underlying the flap, called stroma, is ablated and the flap is repositioned in place. Laser-In-Situ-Keratomileusis (LASIK) and Wave Front Guided LASIK (WFG-LASIK—also called Custom LASIK) are examples of intra-stromal ablation. Your eye care provider and treating surgeon will provide you more specific details, as well as, the advantages and limitations of each procedure.

Typically, uncorrected vision is substantially better following CRS for most people than their uncorrected vision was before treatment. However, all members considering CRS must keep in mind that some of those treated may still need spectacles to attain best distant and/or near vision, especially in low light conditions, and/or meet aeromedical/retention vision standards. Further, use of contact lens after CRS may not be possible in some cases and long term impact of contact lens usage after CRS is not fully known. One other very important factor for AF personnel to consider is that there is a very small chance (estimated <1%) that they will not be able to meet relevant aeromedical and/or military retention vision standards after CRS treatment, even with corrective lenses. Failing to meet military vision standards may result in separation from the AF.

IAW current Air Force policy, anterior surface ablation and intra-stromal ablation procedures are authorized for all AF personnel. ALL AF personnel MUST apply for this elective procedure and be granted Permission-to-Proceed authorization BEFORE undergoing CRS. There may be specific procedure guidelines and authorization limitations for certain career fields. Be sure you understand which procedures are appropriate and authorized for your career path, goals, and requirements. Complete details may be found in AF policies available on this website. Refractive surgery procedures other than anterior surface and intra-stromal ablation specifically identified by the AF policy are NOT authorized for AF personnel. The details of application and required forms are available on this website.

There are two management groups, Aviation and Aviation Related Special Duty (AASD) and Warfighters. In accordance with AF policy, prior to any CRS treatment (DOD or civilian) the application process and receipt of "Permission to Proceed" authorization must be accomplished. Permission-to-Proceed authorization is based on the review of application documentation by the appropriate program manager (Aviation Program Manager – APM, Warfighter Program Manager – WPM) and provides an initial determination that AF CRS guidelines are met. AF CRS guidelines are defined by the USAF/SG consultant for Refractive Surgery and the USAF/SG consultant for Aerospace Ophthalmology. The final decisions of the most appropriate procedure for you and whether to proceed is made by the treating RS surgeon and you.

You are authorized to pursue treatment in a DOD facility if you are eligible for Active Duty medical benefits (AD or activated ARC personnel). Treatment at a DOD center is prioritized for AF personnel; Priority I are certain aircrew, aviation-related special duty (not included are permanently disqualified aircrew and/or former aviators who have cross-trained from aviation career duties) and other personnel specifically identified, Priority II are personnel whose routine military duties require wearing of Night Vision Goggles (NVG), eye protection, or respiratory protection (This does not include nuclear biological chemical (NBC) masks worn only for deployment), Priority III: Personnel who do not meet any of the above criteria in their current military duties.

You may also elect to pursue CRS at a civilian center at your own expense. You are responsible for obtaining required application documentation, undergoing AF approved procedures, completing all post-CRS evaluations, and providing any other required documentation.

As an elective procedure, there is no AF requirement to undergo CRS for entry or continuation in service. CRS is not a Tri-care benefit. Note: in accordance with AFI 48-123 (Medical Examination and Standards), any refractive surgery procedure is currently disqualifying for entry and continuation in service. However, the AF refractive surgery policy authorizes treatment within specific guidelines (AFI 48-123, chapt 12) and requires that you meet vision standards appropriate for your career. In the case of aircrew, they must also be granted a waiver from their MAJCOM. Further, there are requirements for periodic evaluations throughout your career.

AF policies and memorandums are available to assist you in understanding requirements if you elect to have CRS. All AF CRS related documents are available on this website. This website is intended to provide current information as well. Not every person is a good candidate for these surgical procedures. Talk with your eye care professional, flight surgeon, and/or primary care provider to see if CRS is right for you. Learn as much as you can about CRS, its various techniques, and Air Force CRS policies (all AF policies are available on this website). By understanding the benefits and limitations of these procedures, you can make an informed decision about your most valuable operational tool... your vision. Explore this website for information about the USAF CRS program (both warfighters and aviators).